

## **REMARKS/ARGUMENTS**

In the Office Action, the Examiner noted that claims 1-108 are pending in the application. The Examiner additionally stated that claims 1-108 are rejected. By this communication, claim 25 is cancelled and claims 1-2, 6-7, 24, 26, 28-29, 38-39, 47-48, 61-62, 68-69, 73-74, 83, 97, and 100-105 are amended. Hence, claims 1-24 and 26-108 are pending in the application.

Applicant hereby requests further examination and reconsideration of the application, in view of the foregoing amendments.

### **In the Specification**

Applicant has amended the specification to secure a substantial correspondence between the claims amended herein and the remainder of the specification. No new matter is presented.

### **In the Claims**

#### **Election/Restrictions**

The Examiner noted that the restriction requirement previously issued, which Applicant had elected without traverse on 10/22/2009, noting that the subject matter claimed in dependent claim 27 is significantly similar to that of independent claim 74. Applicant acknowledges withdrawal of the restriction requirement.

#### **Claim Objections**

The Examiner objected to claim 69 because it is dependent upon itself. By this communication claim 69 is amended to depend from claim 68. Accordingly, it is requested that the objection be withdrawn.

The Examiner also objected to claims 100-102 noting that they claim an apparatus, but the parent claim is directed towards a method. By this communication, claims 100-102 are amended to claim a method and it is thus requested that the objections be withdrawn.

### **Rejections Under 35 U.S.C. §102(b)**

The Examiner rejected claims 1-3, 8-18, 28, 30, 33, 35-40, 49-58, 65, 68-75, 81-88, 100, and 103-108 under 35 U.S.C. 102(e) as being anticipated by Lee et al. (hereinafter, Lee), U.S. Patent No. 6,823,458. Applicant respectfully traverses the Examiner's rejections.

Claim 1 recites:

1. An apparatus for sharing input/output endpoints, the apparatus comprising:  
  
sharing logic, coupled to a plurality of operating system domains through a load-store fabric, for routing transactions between said plurality of operating system domains and said sharing logic; and  
  
a first shared input/output endpoint, coupled to said sharing logic, configured to request/complete said transactions for said each of said plurality of operating system domains according to a variant of a protocol, wherein said variant comprises encapsulating an OS domain header within a transaction layer packet that otherwise comports with said protocol, and wherein a particular OS domain header associates a particular transaction layer packet with a particular one of said plurality of operating system domains.

Nowhere does the cited art disclose **sharing logic, coupled to a plurality of operating system domains through a load-store fabric**, as is recited in claim 1. Applicant respectfully asserts that “load-store fabric” is a term utilized within the PCI and PCI Express fields of art, among others, which connotes the use of programmed I/O transactions utilizing loads and stores according to a mapped address space. Support for this assertion may be found in any of the references incorporated into the instant application (e.g., paragraph [0078]). Thus, Applicant submits that “load-store fabric” clearly conveys the subject matter considered as the present invention, and sufficiently distinguishes claim 1 over the various connections between the server 24 and client devices 210-230, as is disclosed in Lee.

Nowhere does the cited art disclose **a first shared input/output endpoint, coupled to said sharing logic, configured to request/complete said transactions for said each of**

**said plurality of operating system domains according to a variant of a protocol**, as is recited in claim 1. The Examiner argues that Lee discloses this limitation in col. 3, lines 43-48 where he states that the “communication links can be any type of communication between the clients 210-230 and the server 240 that facilitates the communication of data between the clients 210-230 and the server 240. For example, the communication links may be one or more networks, such as local area networks (LANs) and wide area networks (WANs), wired or wireless communication links, the Internet, data packet switched networks, and the like. Applicant respectfully submits that this is not persuasive in that Lee only teaches a general topology for interconnecting the clients and the server, but is entirely silent regarding any form of protocol, as is recited in claim 1. Thus, Lee fails to teach any specific protocol at all, and furthermore fails to teach a variant of a protocol. Harriman is silent in this regard as well.

In addition, the cited art nowhere discloses **wherein said variant comprises encapsulating an OS domain header within a transaction layer packet that otherwise comports with said protocol**, as is recited in claim 1. The Examiner argues that Lee teaches this limitation at col. 4, lines 65-67 and col. 5, lines 1-2. Applicant notes, as is argued above, since Lee fails to disclose a protocol, or a variant of a protocol, it follows then that encapsulation of an OS domain header within a transaction layer packet cannot be said to comport with a[n undisclosed] protocol, and thus it cannot be said to *otherwise* comport with said [undisclosed] protocol. Applicant furthermore notes that Lee teaches it is the client 210-230 which sends the unique identifier, and *not* the shared resource. In contrast, communication between the sharing logic and the first shared I/O endpoint, as recited in claim 1, employs the variant that comprises encapsulating the OS domain header within the transaction layer packet.

Furthermore, the cited art utterly fails to disclose **wherein a particular OS domain header associates a particular transaction layer packet with a particular one of said plurality of operating system domains**, as is recited in claim 1. Both Lee and Harriman fail to disclose this limitation. Lee is silent communication between the server and the shared resources. Harriman only generally teaches isolation of PCI Express bus transactions. Applicant respectfully submits that the use of a header in most layered

protocols can connote many different meanings, however, these references are entirely silent regarding use of OS domain headers to associate particular transaction layer packets with particular operating system domains, specifically within a load-store fabric.

Thus, for at least the reasons stated above, it is submitted that claim 1 is both patentably distinct from and nonobvious over the cited art, and it is respectfully requested that the rejection of claim 1 be withdrawn.

Regarding independent claims 38 and 74, these claims contain substantially similar elements and limitations to those argued above as being allowable over the cited references, and it is thus respectfully submitted that claims 38 and 74 are allowable as well. Consequently, it is requested that the rejections of claims 38 and 74 be withdrawn.

With respect to claims 2-3, 8-18, 28, 30, and 35-27, these claims depend from claim 1 and add further limitations that are neither anticipated nor made obvious by Lee. Accordingly, Applicant respectfully requests that the Examiner withdraw the rejections of claims 2-3, 8-18, 28, 30, and 35-27.

With respect to claims 39-40, 49-58, 65, and 68-73, these claims depend from claim 38 and add further limitations that are neither anticipated nor made obvious by Lee. Accordingly, Applicant respectfully requests that the Examiner withdraw the rejections of claims 39-40, 49-58, 65, and 68-73.

With respect to claims 75, 81-88, 100, and 103-108, these claims depend from claim 74 and add further limitations that are neither anticipated nor made obvious by Lee. Accordingly, Applicant respectfully requests that the Examiner withdraw the rejections of claims 75, 81-88, 100, and 103-108.

#### **Rejections Under 35 U.S.C. §103(a)**

The Examiner rejected claims 4-7, 19-27, 29, 31-32, 34, 41-48, 59-64, 66-67, 76-80, 89-99, and 101-102 under 35 U.S.C. 103(a) as being unpatentable over Lee, in view of Harriman (hereinafter Harriman), U.S. Publication No. 20030123484. Applicant respectfully traverses the Examiner's rejections.

With respect to claims 4-7, 19-27, 29, 31-32, 34, 41-48, 59-64, 66-67, 76-80, 89-99, and 101-102, these claims depend from claims 1, 38, and 74 as appropriate and add further limitations that are neither anticipated nor made obvious by Lee and Harriman. Accordingly, Applicant respectfully requests that the Examiner withdraw the rejections of claims 4-7, 19-27, 29, 31-32, 34, 41-48, 59-64, 66-67, 76-80, 89-99, and 101-102.

### **CONCLUSIONS**

Applicant believes this to be a complete response to all of the issues raised in the instant office action and further submits, in view of the amendments and arguments advanced above, that claims 1-24 and 26-108 are in condition for allowance. Reconsideration of the rejections is requested, and allowance of the claims is solicited.

Applicant also notes that any amendments made by way of this response, and the observations contained herein, are made solely for the purpose of expediting the patent application process in a manner consistent with the PTO's Patent business Goals (PBG), 65 Fed. Reg. 54603 (September 8, 2000), and are furthermore made without prejudice to Applicant under this or any other jurisdictions. It is moreover asserted that insofar as any subject matter might otherwise be regarded as having been abandoned or effectively disclaimed by virtue of amendments made herein and/or incorporated in attachments submitted with this response, Applicants wishes to reserve the right and hereby provides notice of intent to restore such subject matter and/or file a continuation application in respect thereof.

Applicant earnestly requests that the Examiner contact the undersigned practitioner by telephone if the Examiner has any questions or suggestions concerning this amendment, the application, or allowance of any claims thereof.

Respectfully submitted,  
**HUFFMAN PATENT GROUP, LLC**

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